

**A. Cover Sheet** (Attach to front of proposal.)

1. Specify:  agricultural project or  individual application or  
 urban project  joint application

2. Proposal title concise but descriptive: Regional Rebate Project for Commercial Customers – “Save Water Save A Buck”

3. Principal applicant organization or affiliation: Metropolitan Water District of Southern California

4. Contact name, title: Peter A. Louie, Interim Conservation Manager

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9. Funds requested dollar amount: \$768,000

10. Applicant cost share funds pledged dollar amount: \$2,500,000

11. Duration (month/year to month/year): 01/2001 to 12/2002

12. State Assembly and Senate districts and Congressional district(s) where the project is to be conducted:  
See attachment #(1) list of legislators

13. Location and geographic boundaries of the project: Metropolitan service territory covers parts of Los Angeles, Orange, Riverside, San Diego, San Bernardino and Ventura counties. See attached #(2) service area map

14. Name and signature of official representing applicant. By signing below, the applicant declares the following: the truthfulness of all representations in the proposal;  
the individual signing the form is authorized to submit the application on behalf of the applicant  
the applicant will comply with contract terms and conditions identified in Section 11 of this PSP.

Stephen N. Arakawa  
(printed name of applicant)

February 14, 2001  
(date)

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*(signature of applicant)*

## B. Scope of Work

### 1. Executive Summary

In January 2001, Metropolitan implemented its Regionwide Rebate Project for Commercial Customers called “Save Water Save A Buck” (Project). This new cost effective (\$37 per acre-foot for CALFED funding) Project is directed specifically at business customers of water agencies in the entire Southern California region excluding San Diego County (they are currently running their own commercial program.) The Project offers rebates from \$15-\$500 for replacing old water wasting equipment with new water efficient equipment. All commercial customers are eligible for the Project, however it targets those businesses identified as high water use sectors according to the California Urban Water Conservation Council’s (CUWCC) 1997 Commercial ULFT Savings Study. These sectors include restaurants, grocery stores and supermarkets, and distribution centers (Category 1). The total number of non-conserving commercial toilets in the Metropolitan service area is estimated at 1,170,000. Of these, the Category 1 toilet market is approximately 170,000 non-conserving toilets. Specifics rebate values for the Project are as follows:

**Table 1**

Rebate Item	Total Installed Cost of Item (Note #1)	Rebate Amount Per Item		
		MWD Portion	USBR Year 1 CALFED (Yrs 2-3)	Total Rebate
ULF Toilets Category 1				
Flushometer	\$220.00	\$60.00	\$60.00	\$120.00
Tank Type (Note #2)	\$175.00	\$60.00	\$30.00	\$90.00
All other ULF Toilets	\$175.00	\$60.00	\$0	\$60.00
ULF Urinals (Including Waterless)	\$220.00	\$60.00	\$0	\$60.00
Flush Valve Retrofit Kit	\$75.00	\$15.00	\$0	\$15.00
Cooling Tower Conductivity Controller	\$2000.00	\$500.00	\$0	\$500.00
Pre-Rinse Spray Head	\$75.00	\$50.00	\$0	\$50.00
High Efficiency Clothes Washer (Coin-op)	\$900.00	\$100.00	\$150.00	\$250.00

Note #1: Installed cost includes customer investment in purchase and installation.

Note #2: Average cost of pressure, vacuum and gravity models.

The Table 1 does not include additional funding for increased rebate levels from Metropolitan’s member agencies because those rebate funding levels vary from service territory to service territory. (Note: Additional member agency funding is not required for participation in the Project). This allows for the member agency to “customize” the funding level to their specific commercial customer needs. For example, Eastern Municipal Water District which serves the San Bernardino County area, is adding an additional \$75, above what is shown in Table 1, for all commercial ULF toilets installed in their area. Upper San Gabriel Valley Municipal Water District (USGVMWD), which serves the foothill communities such as Arcadia, Covina, Glendora etc., are adding funds in every rebate category. USGVMWD is increasing the rebate on high efficiency washers by \$200 to \$450, on ULF toilets by \$40-\$60 depending on where it is installed. The Project administration vendor, Honeywell DMC Services Inc. (Contractor) will be tracking and coordinating where customers are and what rebate level they are eligible for. The customer will not see this “matrix” of rebates as they will all be calling into one central toll free number manned by the Contractor (1-877-SAVABUC).

Why did Metropolitan and its member agencies pick these particular items to rebate on? Metropolitan and its member agencies conducted approximately 1,000 commercial audits over the past few years. The huge volume of data from these audits was analyzed and it was found that no matter what the size or location of the business, certain fixture recommendations were always being made. Those recommendations are the six fixtures that we now rebate on in our Project.

Funding for this aggressive Project is currently being provided by **Metropolitan (\$2.5 million approved by the Board)**, its member water agencies (varying amounts), and the United States Bureau of Reclamation (**USBR - \$150,000**). Metropolitan co-funding for this Project is at our cost-effective limit of \$154 per acre-foot.

USBR funding constitutes the "seed funding" required for Project start-up during 2001. It is expected that the USBR "seed funding" will be fully disbursed during calendar year 2001. **This grant application is intended to secure the funding required to continue the Project at the current fixture rebate levels for one additional year after USBR funding has ended. The funding from CALFED would be utilized “exactly” the same as the current USBR funding is being used. It would increase the rebate levels as shown in Table 1 and pay the Contractor their per fixture fee as shown below.**

**A total of \$768,000 is being requested from CALFED to complete the Project for calendar year 2001 when USBR funding runs out and to run the Project through all of calendar year 2002, allocated as follows :**

Calendar Year 2001 -	\$ 34,000
Calendar Year 2002 -	<u>734,000</u>
<b>Total Requested CALFED Funding</b>	<b>\$768,000</b>
 *Calendar Year 2003 -	 <u>1,392,000</u>
Total - All 3 Project Years	\$ 2,160,000

\* - possible future CALFED grant funding

<b>Fixture</b>	<b>Type</b>	<b>End Use</b>	<b>Contractor Payments</b>
ULF Toilets	Flushometer	Category 1	
		All other commercial uses	\$20.00
	Tank Type	Category 1	
		All other commercial uses	\$20.00
ULF Urinal	Flushometer & Waterless	All commercial uses	\$20.00
High Efficiency Clothes Washer	Coin & Card operated	All commercial uses	\$20.00
Flush Valve Retrofit Kit	Flushometer	All commercial uses	\$13.50
Cooling Tower Conductivity Controller	All Types	All commercial uses	\$118.50
Pre-Rinse Spray Head	1.6 gallon or less	All commercial uses	\$16.50

With no additional outside funding to replace the USBR “seed funding,” the Project would not be able to continue. If funding is granted at a reduced level, the Project could continue at a reduced volume. Funding requested is directly linked to water efficient fixtures installed since the Project is up and running and the Contractor is only paid on a per unit basis.

## **2. Water Issues**

Conservation is an integral part of Metropolitan’s Integrated Resource Plan (IRP). Metropolitan’s service area population is expected to increase from 16.6 million (1999) to 21.3 million (2020). This is a growth rate is equal to adding the city the size of Glendale CA. every year to our service territory. Metropolitan and its member agencies have been actively pursuing water conservation in the residential sector for the past 10 years. As our residential programs reach saturation levels we need to look to other avenues for additional water savings. The water savings potential for businesses are substantial and untapped.

For under \$40 per acre-foot of water saved over the life of the equipment (see Table 5 for details) CALFED can decrease local demand by over 1,000 acre-feet per year thereby decreasing the amount of water to be pumped from the Bay –Delta area. Over the life of the new equipment installed, over 20,000 acre-feet of water will not have to be pumped from the Bay-Delta. The low cost a per acre-foot saved for this Project is due to the fact that the fixtures targeted are high water savers making this Project overall efficient and cost effective for water agencies, customers and CALFED.

Recently, the CUWCC has had numerous meetings concerning BMP 9 for CII accounts. The CUWCC was supposed to adopt long term implementation targets for the replacement of high-water using toilets with ULF toilets in the CII sector. However, because there is little data on commercial ULF toilet programs, there was uncertainty of meeting these targets by many signatories. The CUWCC then decided to implement a “pilot or test” mode for signatories for three years. It is hoped that new commercial ULF toilets programs will begin within this period and that data can be used to set long-term commercial ULF toilet targets. The Save Water Save A Buck Project would be the largest commercial ULF toilet rebate Project in California and maybe the country. The information we would be able to provide CUWCC and its signatories through reports and/or presentations on our Project would crucial to setting accurate and fair commercial ULF toilet targets.

Over the past year and half, Metropolitan had numerous work group meetings with our member agencies and their retail agencies to brainstorm on what was the obstacles to implementing a commercial water conservation rebate program and what would be the best ways to overcome these obstacles. One major obstacle is that the most cost-effective markets to target (restaurants and grocery stores) are not locally owned. There may be a Burger King, Sizzler and Vons in the retail water agency service territory, however the corporate headquarters is located somewhere else. To overcome this and other obstacles, consensus was reached that we would need a Project administration contractor to reach beyond retail water boundaries to implement the Project region-wide.

### 3. Project/Project Objectives

The general objective of the Project is to secure cost-effective water savings within Southern California's business community through the replacement of water-inefficient fixtures and equipment.

In the area of commercial toilets, cost-effectiveness is achieved by specifically targeting the replacement of those toilets within the highest water consumption sectors. The CUWCC has identified the top three water-use categories for toilets as restaurants, food stores (grocery markets, supermarkets, etc.) and distribution centers<sup>1</sup>, which the Project identifies as Category 1 uses.

The 2 year specific operational objectives of the Project are to:

- Replace a minimum of 5.0 percent (8,500) of those existing toilet fixtures within Category 1 that are not 1.6-gallons-per-flush (gpf) units.
- Replace a minimum of .40 percent (4,250) of those existing non-conserving toilet fixtures within all other commercial end-uses.

In addition, commercial clothes washers<sup>2</sup> represent a second specific target of the Project, with approximately 80,000 such units currently installed in the Project's territory, about 83 percent of which are located in multi-family common area laundry rooms. A third specific objective of the Project is to:

- Replace a minimum of 1.5 percent of the existing water-inefficient commercial clothes washers with high-efficiency units meeting CEE requirements.

### 4. Approach of the Project

The combining of previously fragmented and localized commercial Projects and marketing outreaches into a single unified approach to the marketplace is based upon three factors:

- a. Employing a **regionwide** (Southern California) approach to marketing the benefits of commercial-institutional water conservation to end-users;

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<sup>1</sup> *CII ULFT Savings Study - Final Report*, California Urban Water Conservation Council, August 5, 1997.

<sup>2</sup> Coin- and card-operated clothes washers within laundromats and multi-family common area laundry rooms.

- b. **Targeting** those specific end-uses where retrofit of an existing fixture would yield the highest annual and lifetime water savings; and
- c. Offering **rebate** amounts that will attract participation by the targeted customers.

Combined, these actions are already achieving better coverage of the targeted sectors. In addition, the Project is designed to capture the economies of scale inherent in a broadly based outreach effort. Specifically, the rationale behind each factor is as follows:

- **Regionwide marketing**

Marketing by the Contractor to commercial-institutional end-users is designed to stimulate interest and participation in water conservation measures and uses such contact points and avenues as:

- chain headquarters of commercial and institutional customers
- industry and trade organizations and associations
- industry contacts
- Chambers of Commerce
- trade journals and trade shows
- bill stuffers and separate mailings to agency customers (at the sole discretion of the participating member agency)
- seminars, workshops, special outreach events and publicity, including advertising and publicity materials

For example, the Contractor is currently approaching the facilities managers of large commercial and institutional end-users (particularly restaurants) with multiple facilities in order to secure retrofit commitments. By making contact with higher-level facilities decision-makers in the organization, marketing is more cost-effective and results in an increased volume of fixture replacements.

- **Target marketing efforts toward end-users with the highest potential water savings**

The results of *The CII ULFT Savings Study*<sup>3</sup> sponsored by the CUWCC show that certain end-use market segments yield substantially higher savings per replaced toilet fixture than others. In order to achieve the greatest cost effectiveness from the proposed Regionwide Project, the Contractor target markets those end-uses ranked at the top of the savings scale. End-use market segments have thus been grouped into three primary categories as shown below, with Category 1 becoming the target for the initial marketing efforts. Expected savings per toilet fixture is shown below:

End Use Categories	Estimated Savings	Expected Average Life of Water Savings (yrs)	Acre – Feet of Lifetime Water Savings
<b>Category 1</b>			
Wholesale	57	20	1.277
Food Store	48	20	1.075
Restaurant	47	25	1.316

<sup>3</sup> *CII ULFT Savings Study - Final Report*, California Urban Water Conservation Council, August 5, 1997.

<b>Category 2</b>			
Retail	37	20	.829
Automotive	36	20	.806
Multiple Use	29	25	.812
Religious	28	25	.784
<b>Category 3</b>			
Manufacturing	23	25	.644
Health Care	21	25	.588
Office	20	30	.672
Hotel/Motel	16	20	.358
School (note 1)	17	30	.571
Misc.	17	25	.476

Note 1: savings from schools unknown, this is an estimate

The total number of non-conserving commercial-institutional toilets in the Metropolitan service area is estimated at 1,170,000. Of these, the Category 1 toilet market is approximately 170,000 non-conserving toilets, divided as follows:

Restaurants and bars	140,000
Food stores	15,000
Wholesale trade facilities	<u>15,000</u>
TOTAL	170,000

Categories 2 and 3 contain an estimated 1,000,000 non-conserving toilets.

Although the thrust of the Contractor's marketing efforts for ULF toilets is focused on Category 1, all other end-users remain eligible for participation in the Project.

The marketing emphasis for coin- and card-operated commercial high-efficiency clothes washers is directed at route operators, laundromat owners, and washer manufacturers.

- **Increase rebates to motivate end-users to replace high-use fixtures and equipment**

The third significant element of the Project is a rebate structure consistent with the expected water savings of the fixtures and equipment. Therefore, rebate amounts for ULF toilets installed in Category 1 facilities have been doubled (over previous programs) to \$120 for all fixtures except standard tank-type gravity toilets, where the rebate is set at \$90. Rebates for Categories 2 and 3 are unchanged from the previous programs and remain at \$60 per ULF toilet.

Additional rebate funding for ULF toilets is currently being provided by the following water agencies for toilet replacements within their service areas:

Eastern Municipal Water District, Los Angeles Department of Water and Power, Upper San Gabriel Valley Municipal Water District, Southern California Water Company

For coin- and card-operated high-efficiency clothes washers, rebates have been increased from the previous \$100 to \$250. Additional rebate funds may be made available from or through cities, local water agencies, and local and regional energy providers, such that the total rebate offered for a high-efficiency washer could reach or exceed \$300 per machine.

To summarize, the minimum Project rebate amounts are established at the following:

ULF toilets – End Use Category 1 : standard tank-type gravity	\$ 90
End Use Category 1 : all others (flushometer, pressure and vacuum-assisted)	\$120
End Use Categories 2 and 3	\$ 60
ULF urinals	\$ 60
High-efficiency clothes washers	\$250
Cooling tower conductivity controllers	\$500
Flush valve retrofit kits	\$ 15
Pre-rinse self-closing spray heads	\$ 50

## 6. Schedule

The Project is already up and running as of January 31, 2001. All of the administrative labor and costs related to a start-up including designing application forms, checks, invoices and quarterly reports have all been completed. So there are no tasks. The Contractor is paid on a “per unit” basis therefore on-going costs are only incurred when units are rebated on. The only deliverable would be the actual installation of the water savings measures and its accompanying rebate. Projected costs for this deliverable would fall into two categories, rebates and contractor payments. Under our existing contract with the Contractor, they are reimbursed different levels depending on whether they have rebated a ULF toilet in a restaurant vs. a school district etc., therefore they have a financial incentive to get the ULF toilets into the most cost effective and highest water savings areas. See Table 6 for complete breakdown. Chart 1 (attached) is a timeline which depicts estimated Project expenditures based on the number of units rebated.

## 6. Monitoring and Assessment

Project design includes both internal and external monitoring and follow-up assessment as follows:

Internal: The contract between Metropolitan and the implementation Contractor is performance-based. Payments to the Contractor are made only for completed fixture and equipment replacements. In addition, monthly reports and direct Metropolitan on-line access to the Project rebate database maintained by the Contractor provide additional internal controls.

External: Metropolitan, through its verification process, performs periodic verification of fixture and equipment installation through an on-site inspection process administered by Metropolitan. This process is designed (1) to ensure the ongoing integrity of its programs and (2) to assure the participating water agencies that funds are being used as intended.

### **C. Outreach and Information Transfer**

- 1) This Project is available to all members of the business community. In the first week of the Project, Metropolitan placed half page ads in the 7 largest urban newspapers in southern California (See Attachment ). Metropolitan and its member agencies have for ten years been working in conjunction with community based organizations (CBO's) to implement residential ULF toilet programs. CBO's will be utilized to assist in the marketing and implementation of this new Project through their outreach efforts.
- 2) It is hard to estimate the number of people and/or organizations that are going to receive benefits from this Project. We do know that as the Project gets up and running, it will increase the opportunities for local plumbers and handymen to install the ULF toilets and other water efficient measures. Also, as the Project expands, the inspection companies that Metropolitan contracts with will be hiring more field staff.
- 3) Metropolitan and its member agencies plan on disseminating the Project information in a number of ways. First, to disseminate the information within southern California, Metropolitan holds quarterly conservation work group meetings with its retail and wholesale customers. Metropolitan will provide installation rates as well as other Project data along with anecdotal information on how the Project is operating. Another way to get the information beyond the retail and wholesale water agencies and to the customers is through "success stories". Metropolitan is already working with large, brand recognizable (example: In N Out Burger) customers to tell their story on why they participated in the Project and the benefits derived from it. Commercial customers listen to what their competitors are doing more than they will listen to their local water utility. These types of testimonials will go along way in getting our message out that saving water is good for business.

To get information transferred throughout California, the CUWCC would be the best venue. Metropolitan and its member agencies are very active in CUWCC. Currently BMP 9, ULF toilet targets for commercial customers, is in a "test" mode as the CUWCC waits for more information from commercial ULF toilet programs. Our new Project would be the largest commercial ULF toilet rebate program in California and maybe the country. The information we would be able to provide CUWCC through reports and/or presentations on our Project would crucial to setting the statewide commercial ULF toilet targets. And finally, we will be disseminating the Project information nationally through our website and through presentations at national American Water Works Association (AWWA) meetings.

### **D. Qualifications of Applicant and Establishment of Partnerships**

- 1) Bill McDonnell, Senior Resource Specialist, will be the Project Manager, his resume is attached.
- 2/3) There are numerous external cooperators that will be used on this Project. First, USBR is a co-funding partner during the start-up phase of this Project. Without their funds increasing rebate payments and paying for the Contractor services this Project would never have gotten off the ground. Second, the Contractor, Honeywell DMC Services Inc., will be the administrator of the Project. They are responsible for answering the "877" number, sending out applications, collecting and reporting Project data,

processing and sending out rebate checks and marketing the Project. And last but definitely not least the member agencies. They have been instrumental in the design and formulation of this Project from its inception as an idea at a meeting. They have worked with Metropolitan and each other to assure the Projects success. They wanted a Project that allowed for individual flexibility at the retail level without sacrificing the benefits of economies of scale on the regional end. This they have done. The Project allows for each retail participant to co-fund or not to co-fund and to market to their businesses needs as they see fit.

Also, Metropolitan has begun meetings with Southern California Edison (Edison) and Southern California Gas Co (Gas Co.) to see if there can be a fit between the new regional water Project and their energy programs. With the new commercial water Project being regional in scope, it makes much more sense for either energy utility to partner with the water Project. In the past, commercial water conservation programs were not centralized and it made it difficult for large energy utilities co-fund. Another advantage to partnering with e energy utilities is that they have large field staffs of “account executives” who work closely with all types of businesses. Just having them be a marketing force for the Project would be a great help. Why would energy utilities want to market a water Project, “it is good customer service” to tell your account about funding available for water efficiency improvements.

**E. Costs and Benefits**

**1) Project Costs**

Direct Project costs consist of the following two elements:

Rebates to the customer	\$1,600,000
Project marketing and administration (by Contractor)	<u>355,000</u>
<b>Total: Direct Costs</b>	<b>\$1,955,000</b>

Indirect Project costs include those costs borne by the customer for the purchase and installation of the rebated fixture or equipment (net of rebates):

\$2,326,250

Project management and overhead costs borne by the managing water agency (Metropolitan) for the 2-year Project are as follows:

Staff time for Project Manager for three years at 60% time	\$100,000
Marketing (newspaper ads)	<u>\$30,000</u>
	\$130,000

**Total: Indirect Costs** **\$2,492,250**

**Total Direct and Indirect Project Costs** **\$4,447,250**

A complete breakdown of direct and indirect Project costs for each of the two years may be found in Table 6.

**2) Budget Justification**

Table 6 details costs of the Project. There are two costs in this Project that the CALFED funds would be used for

- a) the Contractor payments which are on a per unit basis
- b) increased rebate levels

The Contractor is crucial to the Project as they are the gatekeeper and allow for the Project to have a centralized seamless Project for the commercial customer. With out the Contractor, each member agency would have their own phone number to call into, their own application forms, their own rebate checks etc. making the program very disjointed and inefficient.

The increased rebate levels are calculated on a combination of the CUWCC commercial ULF toilet water savings study and the higher price for commercial (flushometer) toilets. The estimated installed price of each rebate item is included in Table 6.

### 3) Benefit Summary

#### Replacement Targets and Water Savings

The Project is underway. The annual targets for the major fixtures and equipment replacements are shown in Table 2, with the resulting market penetration itemized in Table 3. Overall, the replacement of over 12,000 commercial toilets and 1,200 commercial clothes washers is anticipated over the 2 year Project.

Table 4 summarizes the expected water savings yielded by the targeted replacements, while Table 5 provides annualized detail for each of the fixture and equipment items. At the conclusion of the 2-year Project, the water savings rate is projected at over 1,050 acre-feet per year, and 20,000 acre-feet over the physical lifetime of the fixtures and equipment.

#### Annual and Lifetime Benefit (Present Value)

□ Annual Water Savings:	1,372 acre-feet
□ Annual Benefit:	\$617,400
□ Life Water Savings:	20,733 acre-feet
□ Lifetime Benefit	\$5,693,419 (Present Value)

Note: Present value was calculated for each fixture since they have different life expectancy and different savings rate. Then the individual present value totals were added up. Present value benefits were calculated using a 6 percent discount rate. Benefit based on a 1 avoided cost of water of \$450 per acre-foot. For specifics on life expectancy of fixtures and daily water savings see Table 5.

#### Net Project Cost of Water Saved

With a projected Project water savings of 20,000 acre-feet, the total direct Project cost per acre-foot amounts to \$87.05 (refer to Table 5). **The cost for CALFED funding is 37.01 per acre-foot.** This low number is because this Project is targeting the most cost-effective replacements in the commercial sector plus

the Project is already running so startup costs are not an issue. Note that all rebate payments and Contractor compensation are related directly to the number of fixtures and equipment installed by customers. *Therefore, any shortfall in performance by the Contractor would not result in an increase of the direct Project cost per acre-foot of water saved.*

**Table 2. Targeted Device & Equipment Replacements (major items)**

<b>Replacement Item</b>	<b>Project Category</b>	<b>Project Yr 1 2001</b>	<b>Project Yr 2 2002</b>	<b>2-Year Total</b>
ULF Toilets	Category 1	1,500	7,000	8,500
	Categories 2/3	<u>1,200</u>	<u>3,000</u>	<u>4,200</u>
	Both categories	2,700	10,000	12,700
High Efficiency Clothes Washers	Laundromats	0	250	250
	Multi-family common areas	<u>200</u>	<u>750</u>	<u>950</u>
	Both categories	200	1,000	1,200

**Table 3. Expected Market Penetration Under the Regionwide**

<b>Project Replacement Item</b>	<b>Total Non-Conserving Items: "Market" for Device or Equipment Replacement Category</b>		<b>Year 1 Market Penetration</b>	<b>Year 2 Market Penetration</b>	<b>2-Year Total Penetration</b>
		<b>Number</b>			
ULF toilets	Category 1	170,000	0.9%	4.1%	5.0%
	Categories 2 and 3	1,000,000	0.1%	0.3%	.4.0%
	Total: All categories	1,170,000	0.2%	0.9%	1.1%
High Efficiency Clothes Washers	Commercial laundromats	13,000	0%	1.9%	1.9%
	Multi-family laundry room facilities	67,000	0.3%	1.1%	1.4%
	Total: Both categories	80,000	0.2%	1.3%	1.5%

**Table 4. Project Water Savings**

	<b>Expected Water Savings Over Lifetime of Item</b>	<b>Savings Rate of Installed Equipment at Completion of Project Year 2</b>

Commercial ULF toilets	14,928 acre-feet	597 acre-feet/year
Coin-operated washers	1,561 acre-feet	140 acre-feet/year
Other devices & equipt.	4,245 acre-feet	336 acre-feet/year
Total	20,733 acre-feet	1,372 acre-feet/year

CHART 1

	1/31/01	4/31/01	6/30/01	9/30/01	11/30/01	12/31/01	12/31/02
<b>Start of Project</b>	<b>0 units \$0</b>						
<b>1st quarterly report</b>	<b>500 units No Cal Fed funds used</b>						
<b>End FY 2000/2001 Report</b>	<b>1,000 units No Cal Fed funds used</b>						
<b>3rd quarterly report</b>	<b>1,250 units No Cal Fed funds used</b>						
<b>Receive Cal Fed Funding</b>	<b>2,000 units – end of USBR funds The original seed money from USBR of \$150K will only last for approx 5,000 units. At this point the Project would have to shutdown or with CALFED funding could transition perfectly into the Project allowing the Project to continue uninterrupted. The CALFED funding would be used in identical fashion has to how the USBR funding was used. See Table 6</b>						
<b>4<sup>th</sup> quarterly report and year end report</b>	<b>Approx. 300 units with Cal Fed funding out of 36,550 units in total for the year Year End Total Funding: (does not include member agency and customer investment See Table 6) CALFED = \$ 34,025 USBR = \$150,000 MWD = \$239,500</b>						

<b>Year 2 quarterly and year end reports</b>	<b>3081 units per quarter in the second year – yearly total of 12,325 (does not include member agency and customer investment See Table 6)</b> <b>Year End Total Funding:</b> <b>CALFED = \$733,338</b> <b>USBR = \$0</b> <b>MWD = \$798,000</b>
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**Table 5. Program Water Savings**

Fixture or Equipment	Type or Category of Replacement	Average savings per installed unit		Economic Life of Item (yrs)	Size of Market (units)	Number of units installed on the Program in:		Cumulative units installed by Program at end of:		Water savings (acre-feet) Market (note 2)		2-year cumulative water savings (AF) from the Program	Annual rate of water savings (AFY) at end of 2nd Program Yr	Lifetime water savings from installed devices & equipment (AF)	
		gpd (note 1)	afy			Year 1	Year 2	Year 1	Year 2	Penetration	Year 1				Year 2
ULFT (note 3)	Category 1	50.7	0.05675	25	170,000	1,500	7,000	1,500	8,500	10.0%	43	284	326	482	12,058
	Categories 2/3	24.4	0.02733	25	1,000,000	1,200	3,000	1,200	4,200	1.0%	16	74	90	115	2,869
	Total ULFTs				1,170,000	2,700	10,000	2,700	12,700	2.3%	59	358	416	597	14,928
Washer (note 4)	Multi-family	104.0	0.11648	12	67,000	200	750	200	950	5.9%	12	67	79	111	1,328
	Laundromat	104.0	0.11648	8	13,000	0	250	0	250	4.2%	0	15	15	29	233
	Total Washers				80000	200	1,000	200	1,200	5.6%	12	82	93	140	1,561
<b>TOTAL FOR ULFTs &amp; WASHERS &gt;&gt;&gt;</b>											71	439	510	737	16,489

(1) Savings estimate assumes devices installed in that year save water for 50% of the year

(2) Economic (useful) life of CII toilets assumes an equal mix of tank type (20 years) and flushometer type (30 years) units

(3) Coin-operated washer savings assumes a use rate at 8 loads per day

ULF Urinal	49.0	0.05488	30		100	150	100	250		3	10	12	14	412	
Flush Valve Retrofit Kit	22.5	0.02520	5		100	100	100	200		1	4	5	5	25	
Cooling Tower Controllr	2000	2.23995	10		50	75	50	125		56	196	252	280	2,800	
Pre-rinse spray heads	200	0.22400	3		500	1,000	500	1,500		56	224	280	336	1,008	
<b>TOTAL FOR ALL OTHER ITEMS &gt;&gt;&gt;</b>											116	433	549	635	4245

<b>PROGRAM TOTAL - ALL ITEMS &gt;&gt;&gt;</b>	<b>187</b>	<b>872</b>	<b>1,059</b>	<b>1,372</b>	<b>20,733</b>
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**Notes:**

(1) Source: CII Water Savings Study sponsored by the California Urban Water Conservation Council, dated August 5, 1997.

(2) Savings estimate assumes devices installed in that year save water for 50% of the year

(3) Economic (useful) life of CII toilets assumes an equal mix of tank type (20 years) and flushometer type (30 years) units

(4) Coin-operated washer savings assumes a use rate at 8 loads per day

<b>Program Cost per Acre-Foot Saved:</b>	
USBR	\$ 7.23
Metropolitan	\$ 50.04
CALFED	\$ 37.01
<b>Total</b>	<b>\$ 87.05</b>

February 7, 2001

## William P. McDonnell

15217 Hawthorn Ave.  
Chino Hills, CA 91709

Work (213) 217-7693  
Home (909) 393-6699

### Highlights

- 15 years of management experience in water, electric and gas utilities
- 6 years of management experience for Metropolitan member agencies
- Master of Business Administration, University of La Verne, 1995
- Commissioner, Public Works, City of Chino Hills

### Professional Experience

**4/96 – Senior Resource Specialist**  
**Present**

#### *Metropolitan Water District, of Southern California*

Hired for contract management expertise to oversee the “clean up” of over 100-member agency agreements worth over \$50 million dollars. Also, assigned to manage an \$11 million dollar annual conservation credits program and a staff of five. With successful completion of both tasks, now revitalizing the Commercial/Industrial/Institutional conservation credits program by receiving outside funding sources from the United States Bureau of Reclamation (USBR) for a possible District wide program. Member of California Urban Water Conservation Council’s (CUWCC) Steering Committee and the American Society of Mechanical Engineers (ASME) Codes and Standards Committee.

**3/93 – 4/96 Residential Efficiency Programs Manager**

#### *City of Anaheim, Public Utilities Department*

Managed a \$1.5 million dollar annual budget, directed a seven person staff, implemented 20 water and electric demand side management (DSM) programs resulting in 1,000 acre feet of water savings and 11 megawatts of on-peak energy reductions annually. Prepare program presentations for Public Utilities Board and City Council meetings.

**7/90 - 3/93 Conservation Program Specialist**

#### *Pasadena Water and Power Department.*

Managed three engineers who designed and implemented a variety of DSM programs including industrial water processes, thermal energy storage, electric heat pumps, AB325, HVAC and lighting. Initiated a Tri-Cities conservation consortium with the cities of Glendale and Burbank to leverage funds and share information for the purpose of better serving our customers.

\* My experience over the following nine years was working with the consulting firm of Honeywell/DMC Services Inc., Los Angeles CA. I worked with a number of electric, gas and water utilities, along with local and state agencies. The first three of those years I was working in Massachusetts, so for brevity, I have excluded them here. A brief explanation of the projects is as follows:

**10/88 - 7/90 Executive Director**

***Southern California Edison***

Served as Executive Director for the ***Heat Pump Council of Southern California.***  
Directed a 120-member council comprised of utilities, manufactures and contractors.

**Rate Specialist**

***Southern California Edison.***

Managed Time-of-Use and Domestic Seasonal rates.

**9/86 - 10/88 Program Manager**

***Monterey County Water Conservation Program.***

Managed a staff 35. Worked with Monterey Peninsula Water Management District.

***City of San Jose Water Conservation Program.***

Directed a staff of 24. Worked with the San Jose Office of Environmental Management.

***Southern California Edison Load Management Program.***

Supervised a staff of 12. Worked with SCE load control programmers.

**9/84 - 9/86 Supervisor**

***Southern California Gas Company's Weatherization, Finance and Credits Program.***

Supervised a staff of 65 implementing a water and energy conservation program.

***City of Santa Monica Energy Fitness Program.***

Supervised 25 employees for a water and energy conservation program

**EDUCATIONAL BACKGROUND**

**Master of Business Administration**, 1995 - University of La Verne, CA

**Bachelor of Arts Degree**, 1980 - University of Massachusetts, Amherst, MA.

Major: Business Management , Graduated Cum Laude

**PROFESSIONAL CERTIFICATIONS and ASSOCIATIONS**

Chino Hills Public Works Commissioner, Member of the Association of Energy Engineers (AEE), and the American Water Works Association (AWWA), California Urban Water Conservation Council (CUWCC) Steering Committee, American Society of Mechanical Engineers (ASME)

**COMPUTER SKILLS**

Proficient in IBM Windows based software including Word, WordPerfect, Excel and PowerPoint

